DXpedition News

Thailand - HS Five members of the Japan UNICEF Ham Club will operate from Thailand as **HSØILY** July 27-29. The team will operate on all bands, 40-10 meters, CW and SSB. Operators are JA8ATG, JA2SWJ, JF3CCN, JR3WXA, JH1FVE. QSL to JA2BCQ. Sunrise 2304Z, sunset 1145Z. [The ILY suffix signifies International Literacy Year, as proclaimed by the United Nations. 1990 is the start of a ten-year UN project to improve literacy worldwide. The UN estimates that currently one in four persons under the age of 14 is illiterate.]

Tonga - A3 According to Japan DX News, three Japanese operators will be active from Tonga July 30-August 2, 80-10 meters, CW, SSB, and FM. Look for **A35AU** (JG1AOU), **A35QC** (JF1WQC), and **A35UN** (JG1DUN). QSL home calls. Sunrise 1850Z, sunset 0600Z.

Edited by Chod Harris VP2ML

The DX Bulletin

America's Premier Weekly Amateur Radio Publication

Norfolk Island - VK9N Koji Tahara VK2FCA (ex-JM1CAX) will operate as **VK9NX** Aug. 22-28, including the All Asian CW Test. Outside the test, he will be on CW and SSB, 10-80 meters, including the new bands. QSL via the VK bureau, or direct to Koji c/o Consulate General of Japan, GPO Box 4125, Sydney, NSW 2001, Australia.

Grosse-Ile - CIØ The Grosse-Ile DX Groupe did obtain the callsign **CIØGI** for their July 26-31 operation. Try 28490, 21240, 14190, 7090, and 3790 kHz on SSB, and 28023, 21023, 14023, 7003, and 3503 kHz on CW. QSL direct to the Groupe at 88 Latouche, Beauport, PQ Canada G1E 6M8, or via the VE bureau. For direct response, please include SAE and US$1, or two IRCs, or $0.45 **Canadian** stamps for US, or $0.78 Canadian for DX.

July 20, 1990 Issue 547

Shortly Noted

- **V2 Antigua** is the destination of Doug NF6H and Allen AA6OG, July 30-August 8. Operation will be on 10-80 meters, mostly CW. QSL home calls.
- **XU8DX** has been heard on 21275 kHz at 0100Z, according to W1AW. QSL JA1NUT.
- **H44AP**, the most active station in the Solomons, has been on 17-meter SSB around 18130-35 kHz, at 1130-1230Z.
- **H44SH** Stu Honeysett has left the Solomons for a new post in the Ivory Coast. He hopes to get his TU license soon. Meanwhile, DXers may QSL Stu's H44SH and H44R operations c/o Serebou Seed Project, 04 B.P. 161, Abidjan 04, Cote D'Ivoire, West Africa.
- **Oblast** hunting has been very productive lately, thanks to numerous Soviet DXpeditions. Most Oblast hunters use CW for the majority of their contacts, but Angel **WA2VUY** recently finishing working all Oblasts on SSB! Was he the first DXer to do so?
- **QSL news: AH3C**'s QSL manager K9UIY reports that his full-color QSL cards finally arrived from the printer. He hopes to clear up the 12-foot long backlog of QSLs by the end of August. Also, NØBLD, manager for **TZ6VV**, says that some mail has been stolen from his mailbox. If you haven't received your confirmation in a few weeks, please try again.
- **DXCC backlog** is presently about **four months**. Don't worry if it has been a long time since you sent in the cards.
- **SSB Net** check-ins: **14222** kHz: OX3SG T2ØAA C56/ON7EH ZK1BY TL8WD ZK1XP; **14227**: V73AZ H44AP 7Q7RM KHØ/N6BUV 3B8AD 5N6ZHM OX3SG AH9A/KC6 YI2CVB JY5IN YJ8RN BV5OC 3D2AG KHØEC 9M8MG T3ØBC; **14256**: 3A2LU CEØDFL TA1AR OY9JD CX7BC UG6JJ; **21335**: TJ1RK OX3SG 5V7RV ZS9A ZC4BS.
- **RTTY** report: some active stations: **JY9SR** 14085 kHz at 0220Z; **TA3D** 14088 0300Z; **FK8BK** 14074 ARQ 1110Z; **TJ1MW** 14085 0630Z; **VU2BMW** 14074 ARQ 1445Z; **TZ1DE** 14083 2000Z; **V85FH** 14085 2015Z; **JX9CAA** 14084 1606Z; **OD5SK** 21086 1620Z; **9Q5BG** 21089 1700Z; **HKØBKX** 21088 1600Z.
- **Islands On The Air: ED5ICE** will be active from Columbretes Isle (EU-69) 06-1800Z Aug. 5. QSL EA5AR. **4K4R** and **4K4RAS** will be on from Zapadnyy Kamennyy Island (AS-68) Aug. 1-15. Try 14260, 21260, and 28560 kHz on SSB, and 20 kHz up on CW. **F6ELE** will be on from Sein Island (EU-68) Aug. 31-Sept. 3. Some recent reports: **4K3/UA3YCA** (EU-85) 14027 0420Z; **4K3MI** (EU-119) 14037 0715Z; **EA6AAK** (EU-04) 14027 0100Z; **4K4POL** (AS-65) 14016 0830Z; **JQ3UXM/6** (AS-23) 14028 1400Z; **PAØMDG** (EU-38) 14025 0530Z.
- **6-Meter News** (From the KA3B 6 Meter Report, 1606 South Newkirk St., Philadelphia PA 19145.) **WZ8D** is on a grid-square swing through Canada. Try 50.125 MHz at 7am, 11am, and 10pm local. **OX3LX** (OZ1DJJ) is back in Greenland, and will be on from GP60 to Aug. 1, and then from HP15 for the first three weeks in Aug. QSL home call.

Propagation

Forecast and Historical Data

Day	Forecast	27 Days Before			55 Days Before			
July 1990		Date	Flux	A K	Date	Flux	A	K
20	High Normal	06/23	133	07/10 2	05/26	180	38/32	5
21	High Normal	06/24	137	07/09 2	05/27	157	35/42	2
22	High Normal	06/25	142	08/10 2	05/28	154	09/10	2
23	High Normal	06/26	148	09/10 2	05/29	138	08/13	2
24	High Normal	06/27	165	12/11 2	05/30	140	18/23	3
25	High Normal	06/28	178	08/12 2	05/31	140	14/13	4
26	High Normal	06/29	200	10/13 2	06/01	136	12/12	3
27	Above Normal	06/30	216	04/07 1	06/02	136	04/08	0
28	Above Normal	07/01	235	06/08 2	06/03	140	05/10	2
29	Above Normal	07/02	252	09/11 1	06/04	142	07/09	1
30	Above Normal	07/03	240	10/11 2	06/05	147	07/10	3

Propagation Watch

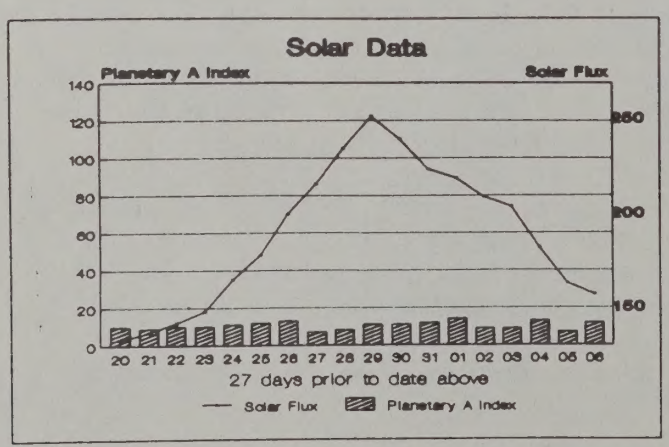
The solar flux dropped to the 140-150 range, as expected. Look for the flux to continue to drop to about 130, bottoming out around July 19-20. Then the more active side of the sun will begin to rotate in our direction, and solar flux will increase, perhaps to the 250 range. The flux should reach a maximum around July 28-30.

The combination of relatively low solar activity and seasonal effects has depressed maximum useable frequencies (MUFs). Except for north-south paths and occasional multiple-hop E-skip, there has been little DX on 10 or 12 meters. 15, 17, and 20 meters have been the primary DX bands, a trend that will continue for the next couple of months.

Fortunately for DXers, the geomagnetic field has been very quiet. This means that the long path provides lots of choice DX, especially the early morning (local time) path to the west on 20 meters. Also, high-latitude paths such as the West Coast to Europe, and the East Coast to Japan provide above-average DX opportunities.

The low bands continue to be seasonally poor, thanks to the short night in the northern hemisphere, and increased atmospheric noise. However, 30 meters is open more often that reports indicate.

As the solar flux increases, check the long path on 15, 12, and 10 meters a hour or so after sunset. The absorbing D layer of the ionosphere dissipates immediately after sunset, and the F1 and F2 layers combine soon after sunset. The result is an increase in maximum useable frequency after local sunset. These openings remain largely ignored BY DXers, but can provide some excellent DX, usually with weak signals. Try it around the end of July!



Regulars

▪ **Algeria**	7X4AN	21005	2230-0100Z
▪ **Armenia**	UG6GAW	21014	0200Z
▪ **Asiatic RSFSR**	4K4QQ	14030	1000Z
▪ **Djibouti**	J28NU	14014	1330Z
▪ **Eastern Malaysia**	9M8PV	14175±	1045Z
▪ **Eastern Malaysia**	9M8MG	14220±	1200Z
▪ **European RSFSR**	4K3MI	20M CW	03-05Z
▪ **Gabon**	TR8GL	14196	22-2400Z
▪ **India**	VU2ZAP	21008	0145Z
▪ **Japan**	8J9ØXPO	14021	1200Z
▪ **Jordan**	JY9SR	21032	01-0200Z
▪ **Kerguelen**	FT5XH	14200	11-1200Z
▪ **Kerguelen**	FT5XA	14195	11-1300Z
▪ **Kuwait**	9K2YA	14250	1400Z
▪ **Kuwait**	9K2CS	15M SSB	2330Z
▪ **Malawi**	7Q7RM	14035-40	12-1300Z
▪ **Malaysia**	9M2DM	14240	1000Z
▪ **Malaysia**	9M2AX	14027	1200Z
▪ **Marion Island**	ZS8MI	14255±	1145-1430Z
▪ **Marshall Islands**	V73AZ	14200±	11-1200Z
▪ **Marshall Islands**	V73AZ	20M CW	10-1200Z
▪ **Mayotte**	FH5EJ	14019	1230Z
▪ **Nauru**	C21DX	21028	0300Z
▪ **Papua New Guinea**	P29BY	20M SSB	10-1100Z
▪ **Papua New Guinea**	P29PL	14010	1000Z
▪ **Sierra Leone**	9L1US	21327	1900Z Sunday
▪ **Singapore**	9V1XQ	20M SSB	1030Z
▪ **Singapore**	9V1JY	14006	1100Z
▪ **Solomon Islands**	H44AP	20M SSB	11-1300Z
▪ **Sri Lanka**	4S7CF	20M CW	12-1400Z
▪ **Sri Lanka**	4S7CF	21005	0130-0200Z
▪ **Sri Lanka**	4S7EA	21008	23-0300Z
▪ **St. Helena**	ZD7KM	21023	1930Z
▪ **Tanzania**	5H3TW	14020	1200Z
▪ **Togo**	5V7RC	14018	23-0100Z
▪ **United Nations**	4U1UN	21285	2000Z
▪ **United Arab Emirates**	A61AD	14185±	12-1400Z

Lightning Destroys KC4NC Station

On July 12, lightning struck the Norfolk, Virginia, home of Tom Brown KC4NC. The ensuing fire destroyed his home, his radio equipment, and the logs of the African stations whose QSLs he handles. These stations include **9Q5DA, 9Q5XX**, and all of Tom Gregory N4NW's African operations: **9Q5NW, TN4NW, TL8TG, N4NW/5N, ZS6USA, TU73**, and **TU2NW**. KC4NC's computer and the back-up copies of the logs were all destroyed in the fire.

Tom Gregory is checking his files to locate any back-ups of the 9Q5TW, TN4NW, and TL8TG logs. However, he is not optimistic of finding much of these logs. There are no copies of Tom's other African logs.

Tom Brown regrets to say that any recent QSL request was destroyed in the fire. Since the logs are probably lost, please don't send a duplicate card until N4NW can check his files for duplicate logs.

On the brighter side, Tom Brown says his insurance company will replace his house, and the ARRL Amateur Radio Equipment Insurance plan will replace his radio gear.

[Thanks to Tom Gregory N4NW for this exclusive report.]

B . A . N . D . P . A . S . S

*Key to Bandpass: Callsign, frequency, UTC, day of the month, state. * = long path. P = packet.*
All "portable" calls listed with country of operation first, regardless of format used on the air.

RTTY

5NØETP	21088	2044	11	PA
5NØETP	14092	2222	6	PA
A41JW	14092	0130	13	PA
EA9MY	14082	0305	13	CA
J39BS	14093	0222	7	PA
SU1HN	14090	0022	4	FL
UZ9CWA	21092	0350	7	CA
VP8BFH	14091	2355	2	FL
YL1WW	14091	0255	12	CA

160 Meters

VK4YB	1832	1140	1	WA
ZK3EKY	1825	1157	9	WA

40 Meters

4L1NV	7013	0147	8	NJ
HC5AI	7003	0920	9	FL
VP2EXX	7001	0204	4	IN
VQ9SS	7008	1250	6	CA

30 Meters

VQ9QM	10105	2323	7	MA

20 Meter CW

3B8CF	14031	1254	11	UT
3B8FK *	14017	1241	30	AL
3B9FR *	14032	1200	5	IA
4K1A	14012	1351	4	MN
4K2OT	14007	0251	26	LA
4K3MI	14020	0315	6	SC
4K3ODX	14011	1035	5	NB
4K4QQ	14032	0940	9	FL
4S7CF	14004	1153	7	MI
4S7NE	14003	1205	10	IA
5H3TW *	14022	1251	1	AL
5V7RC	14018	2323	12	PA
5W1KT	14014	1038	5	NH
7Q7RM *	14041	1227	7	MO
8J9ØXPO	14021	1215	4	MI
9J2BO *	14039	1255	30	AL
9M2AX	14027	1151	7	MO
9V1JY *	14006	1051	7	NH
9V1WW	14025	1430	9	UT
9V1YL	14019	1210	10	IA
A61AC	14041	1335	4	UT
AH3C	14029	0335	4	UT
BV2DA	14025	1335	7	CO
BV2TA	14003	1356	30	MI
BZ4RA	14024	1337	7	CO
C21DX	14041	1002	25	MI
EA9TY	14031	0019	9	VA
FH5EJ	14019	1230	11	WA
FK8FG	14024	1050	7	IN
FK8FS	14021	0440	19	MI
FK8GL	14014	0950	6	PA
FR5DD *	14020	1057	2	AL
FR5XA *	14010	1107	4	NB
FT5XH	14010	1218	4	MN
HKØBKX	14022	0400	8	SC
HZ1AB	14005	1311	1	CA
J28NU	14014	1330	10	WA
JD1/ JA9IAX	14011	1024	7	NH
JD1AMA *	14012	1239	1	AL
JW/DK2OY	14033	0454	10	CA
JX7DFA	14015	1325	7	CO
LX2PA	14025	0415	7	CA
OHØBDA	14027	0310	8	VA
OX3TW	14012	0220	5	IA
P29PL	14009	1111	10	PA
T2ØAA	14031	1050	5	NH
UG6GAW	14014	0235	2	CA
UG6JJ	14003	0201	7	MA
UJ8S	14038	0358	6	CT
V73AX	14014	1022	4	IN
V73AZ	14015	0952	4	MI
VQ9QM	14030	0221	8	VA
VQ9TD	14010	1300	8	CA
VU2LBS	14020	1300	8	CA
VU2TTC	14012	1205	10	IA
XX9KA	14026	1336	4	MT
Y9ØANT *	14022	1502	10	CA
Z21CA	14036	1325	8	CA
Z21FN	14008	1350	4	MN
ZD8CUE	14010	2353	12	PA
ZK3EKY	14004	1034	6	IN
ZLØAIC	14009	1336	29	OR

20 Meter SSB

3A/F9UM	14255	0404	10	PA
3B8CA	14226	1241	3	MT
3B8CF	14035	1247	6	MT
3B8FU	14190	1055	7	FL
4F1RGA	14182	1145	4	LA
4S7NS	14191	1204	6	MI
5B4SA *	14186	1355	6	CA
5W1HM	14205	1217	5	NY
7Q7JM *	14200	1410	8	CA
7X2DB	14159	0320	5	LA
8J9ØXPO	14208	1348	3	NH
9K2EC	14240	2140	7	MD
9K2KS	14192	0230	4	MN
9K2YA	14252	1404	4	MT
9M2DW	14240	0930	6	NY
9M2JA	14287	1325	7	MT
9M8MG	14232	1200	3	CA
9M8PV	14175	1041	7	CO
9V1XQ	14165	1020	5	FL
A22AA	14198	1500	4	CA
A41KJ *	14195	1318	4	CA
A61AD *	14190	1210	3	IA
BV2GC	14197	1346	2	MT
C56/ ON7EH	14197	0110	9	WV
CEØMTY	14160	0111	12	LA
DU9RG	14165	1026	2	NY
FK8FR	14217	1032	9	FL
FOØIGS	14214	1316	5	NH
FO5DX	14208	1220	4	VA
FR4AE	14192	1255	8	VA
FR5DX	14208	1243	3	NH
FT4WB	14190	1240	11	WA
FT5XA	14195	1050	7	FL
FT5XH	14201	1103	6	MA
H44AP	14165	1113	2	VA
JD1/ JA9IAX	14205	1257	2	VA
KA2IJ	14185	1040	3	FL
KC4AAA	14176	1210	5	IA
KHØAC	14227	0705	4	LA
P29BT	14165	1020	3	FL
P29DY	14188	1141	6	IL
TA5C	14180	0002	5	MA
TR8GL	14198	2118	5	NY
TU2UI	14249	0437	7	LA
UAØFF	14187	1148	8	MA
V63SB	14227	1015	4	VA
V73AT	14165	1033	4	VA
V73AZ	14235	1055	2	NY
V85HG	14180	1013	10	MD
VKØCH	14160	1244	4	MT
VU2DQP	14196	1245	5	MT
VU2DZ	14177	1053	6	MA
VU2HI	14193	1235	5	NH
VU2ORE *	14219	1114	8	MA
XT2BX	14160	0009	9	MD
XX9KA	14165	1210	4	VA
YI1BGD *	14204	1415	6	CA
ZK3EKY	14200	0835	4	FL
ZS8MI	14256	1142	8	WV
ZS9S *	14223	1434	8	WI

17 Meter CW

3B8CF	18079	0338	8	SC
9H3MV	18072	0152	7	MA
AH3C	18073	0130	7	PA
C31LBB	18068	2315	3	SC
EA8FO	18085	0005	8	SC
GD4BEG	18072	0417	8	SC
HZ1HZ	18080	2115	6	SC
JY9SR	18085	0355	3	SC
LY2BR	18090	0355	5	SC
RD7ØDC	18074	0413	4	SC
RVØYF	18075	1813	7	MA
RV6AB	18085	0327	6	SC
TF3CW	18084	2350	7	MO
UL7JC	18072	0213	29	FL
VQ9QM	18074	2255	7	MA
YO3CD	18072	0212	8	NJ

17 Meter SSB

5T5FA	18157	2044	7	MA
9L1US	18111	1300	7	MA
A92DQ	18122	0212	8	NJ
DU1KK	18144	1314	7	MA
UL7JC	18152	0156	3	VA
YO3CD	18151	0114	7	MA
ZB2CF	18147	2338	4	MA

15 Meter CW

4K3MI	21011	1404	4	FL
4K3ODX	21010	1626	3	CO
4K4QQ	21029	0320	4	AZ
4S7CF	21005	0135	8	NJ
4S7EA	21008	2316	6	MO
4S7NE	21002	0112	4	FL
4S7WP	21012	2328	4	PA
5H3TW	21020	2300	5	MI
7X4AN	21004	2235	9	FL
8R1J	21016	1258	1	VA
AH3C	21005	0440	4	MI
AH3C	21005	1830	7	CA
BV2TA	21030	0510	2	CA
BZ1OK	21020	2355	4	PA
C21DX	21030	0250	6	CA
EA9GK	21026	2352	8	FL
FK8FS	21010	0339	9	CO
FR5BT	21007	1830	7	CA
HL5BDS	21017	1440	4	BC
JY9SR	21038	0047	7	GA
SV9BAI	21058	0005	10	FL
TA4A	21012	0140	4	CA
TF3CW	21014	2315	18	MI
UD7ØGF	21032	0335	2	NH
UG6GAW	21012	0211	5	FL
UI9ACQ	21019	0130	10	FL
UJ5H	21028	0048	3	VA
UL7DBV	21010	1622	3	CO
UL7IAL	21013	1540	1	CA
UL7MU	21036	0305	7	CA
VU2ZAP	21008	0140	8	NJ
XX9KA	21021	2226	4	PA
YN3CC	21010	0008	10	FL
ZD7KM	21024	1927	8	WI
ZD8BOB	21009	2207	7	PA
ZD8CUE	21045	2043	7	MI
ZK3EKY	21005	2250	12	PA

15 Meter SSB

3B8AP	21280	0425	8	CA
3D2CM	21308	0908	4	FL
4U1UN	21285	2020	8	WV
5B4MF	21277	2325	7	CA
5H3TW	21269	0131	1	IN
5U7NU	21265	0122	1	IN
5Z4FO	21243	1915	7	MA
9K2CS	21343	2323	4	NH
9K2HA	21258	2326	7	MA
9K2IC	21237	2228	8	WI
9L1US	21327	1919	1	NH
A45ZP	21350	1639	7	WI
A61AD	21244	2055	4	MD
BV2FB	21230	1326	4	NH
BZ1AJ	21275	0210	8	WV
CEØDFL	21290	0027	12	CA
CEØMTY	21280	0010	7	PA
CN8GM	21313	0103	2	MO
ES2WX	21266	1500	3	FL
FOØIGS	21221	0849	4	FL
FT4XG	21281	1302	7	MD
HV3SJ	21293	1928	11	CA
HZ1AB	21401	1930	4	MD
JD1/ JE4LWQ	21251	2240	7	WV
OD5RH	21285	1058	9	MA
OD5SK	21212	0028	9	MD
OX3SG	21289	0400	29	OR
P29CG	21297	1402	30	IL
S79SGA	21239	1750	7	MA
T32AF	21249	1636	10	PA
UG7GWB	21209	1350	4	FL
UI8ZAA	21292	0117	2	NH
UJ5K	21300	0250	2	MA
UL7JC	21313	0305	4	CA
UL7OB	21256	0200	29	OR
V85GA	21293	2226	3	MO
VP2EE	21355	1650	6	MD
VQ9RB	21345	1810	9	FL
VU2TTC	21266	2202	2	WV
VU2WAP	21283	0153	10	MD
XX9KA	21266	2322	4	MO
YJ8MB	21225	1323	7	LA
ZB2IZ	21249	0449	3	WV
ZD9BV	21270	1810	26	NB
ZK3EKY	21202	0314	10	MD
ZK3EKY	21215	1418	6	NY

12 Meters

5H3TW	24906	0000	4	VA
AH3C	24900	0130	7	SC
AH3C	24902	1927	1	FL
C6ANX	24950	1752	7	MA
VQ9QM	24900	1852	7	MA

10 Meter SSB

5H3TW	28414	1640	8	MD
5T5SR	28555	1641	4	MD
6W6JX	28480	1835	3	SC
7P8EG	28685	1500	7	MD
9L1US	28430	1355	7	NJ
CN8GG	28414	0246	8	MD
FT4WB	28440	1030	4	NJ
FT5XH	28440	1020	2	FL
JA6BIF *	28496	1218	3	SC
P29NMD *	28504	0935	3	NJ
PZ1AR	28491	1424	5	NH
PZ1DF	28506	2155	2	SC
TJ1MW	28502	1440	7	MD
TJ1RK	28448	0920	3	NJ
V51P	28490	1240	7	NJ
VK6KAJ *	28445	1100	7	NJ
ZD7DP	28494	2045	2	NJ
ZS8MI	28445	1020	7	NJ
ZS9A	28610	1435	5	FL

6 Meters

CT1QP	50110	1114	28	NS
DK1PZ	50110	2011	28	NS
G2ADR	50110	2030	28	NS
KP2A	50110	1510	30	NS
PA3BFM	50110	2015	28	NS
VP2EHF	50123	2117	7	FL
VP2MO	50119	2112	7	FL

Copyright The DX Bulletin. The DX Bulletin
(ISSN 0279-8077) is published fifty times
per year at P.O. Box 50, Fulton CA 95439.
Telephone (707) 523-1001. Fax: (707) 523-1001.
CompuServe 75755,737. One-year subscription
rates are $29 Second Class Mail, $38 First
Class Mail, US$50 Foreign Airmail. Second
Class postage paid at Santa Rosa CA.
POSTMASTER: Send address changes to
above address.

The DX Bulletin

P.O. Box 50
Fulton, CA 95439
U.S.A.

FIRST CLASS MAIL

First Class
U.S. Postage Paid
Santa Rosa, CA
Permit No. 550

Calendar

Issue 547 - July 20, 1990

(Changes and hot info in boldface.)

Albania - ZA	**by HA5WE etc. soon?**	**I544**
Algeria - 7X	**7X4AN 21005 2230Z**	**I547**
Antigua - V2	**AA6OG, NF6H July 30-Aug. 8**	**I547**
Armenia - UG	**UG6GAW 21014 0200Z**	**I547**
Ascension - ZD8	ZD8LII ZD8LII 28009 1700Z	I546
Azerbaijan - UD	RD7ØDC 18074 0320Z	I546
Bahrain - A9	A92BE 18145± 01-0400Z	I546
Brunei - V8	V85HG 14240 1000Z	I546
Chagos - VQ9	VQ9QM 18072 1500Z	I546
	VQ9RB 21300± 1700Z	I546
Crete - SV9	SV9BAI 21025 21-2400Z	I546
Djibouti - J2	**J28NU 14014 1330Z**	**I547**
Easter Island - CEØ	CEØZIG 21007 0100Z	I546
Eastern Malaysia - 9M	9M8MG 14220/12Z 9M8PV 14175/11Z	
European RSFSR	4K3ODX 14010 0400Z	I544
	3D2DD/SM July 16-21	**I544**
Gabon - TR	**TR8GL 14196 22-2400Z**	**I547**
Grosse-Ile - VE2	**CIØGI July 26-31 New One?**	**I547**
Guyana - 8R	8R1J 14014 1030Z	I546
Iceland - TF	**DLs/TF July 27-Aug. 24**	**I545**
India - VU	VU2ZAP 21008/0145Z	I547
	VU2GI 21345/23Z	I546
Jan Mayen - JX	JX7DFA 20M CW 2230Z	I544
Jordan - JY	JY9SR 21032 01-0200Z	I547
Kampuchea - XU	**XU8DX 21275 0100Z**	**I547**
Kazakhstan - UL	UL7BX 15M CW 01-0300Z	I546
Kerguelen - FT/X	FT5XH 14200 11-1200Z	I547
	FT5XA 14195 11-1300Z	I547
Kuwait - 9K	9K2CS 15M SSB 2330Z	I547
	9K2YA 14250 1400Z	I547
Malawi - 7Q	7Q7RM 14035-40 12-1300Z	I547
Malaysia - 9M	9M2AX 14027 1200Z	I547
Marion Island - ZS8	ZS8MI 14255± 1145-1430Z	I547
	14256 1130Z Sundays	I542
Market Reef - OHØM	**July 26-Aug. 2**	**I546**
Marshall Island - V7	V73AZ 14200, 20M CW 11-13Z	I547
Mauritius - 3B	3B8CF 18077 0315Z 3B8FK 14020/12Z	
Mayotte - FH	**FH5EJ 14019 1230Z**	**I547**
Micronesia - V6	V63JA 14025 10-1400Z	I546
Minami Torishima	JA9IAX/JD1 back	I544
Mongolia - JT	JT1BS 20M CW 1400Z	I546
Nauru - C2	C21DX 21028 0300Z	I547
Norfolk Island - VK9	VK9NX Aug. 22-28	I547
Ogasawara - JD	KA2IJ 14165 10-1200Z	I546
	JD1AMA 14012 1300Z	I546
Palau - KC6	by JAs Sept. 12-16	I545
Palmyra - KH5	**AA6LF/KH5 July 22-29**	**I545**
Papua New Guinea - P2	P29PL 14010 1000Z	I547
	P29BY 20M SSB 10-1100Z	**I547**
Penguin Is. - ZS1	**DK9KX, DL8CM July 14-20**	**I544**
Reunion Island - FR	FR5DD 20M CW 1100Z	I546
	FR5DX 14195/1400Z	I546
St. Helena - ZD7	**ZD7KM 21023 1930Z**	**I547**
St. Pierre - FP	**by W5WMU July 18-24**	**I541**
Sierra Leone - 9L	**9L1US 21327 1900Z Sunday**	**I547**
Singapore - 9V	**9V1XQ 20M SSB 1030Z**	**I547**
	9V1JY 14006 1100Z	**I547**
Solomons - H4	**H44AP 18130-35 1130Z**	**I547**
South Sandwich - VP8	Nov. 20-Dec. 13 VP8SSI	I545
Sri Lanka - 4S	4S7CF 20M CW 12Z 21005 0130Z	I547
	4S7EA 21008 23-0300Z	I547
Suriname - PZ	PZ1DY 14025 09-1100Z	I546
Tadzhikistan - UJ	UJ8JCQ 21010 0130Z	I546
Taiwan - BV	BV2DA 14025 13-1400Z	I546
Tanzania - 5H	**5H3TW 14020 1200Z**	**I547**
Thailand - HS	**HSØILY July 27-29**	**I547**
Tokelau - ZK3	ZK3EKY 21005 1300Z	I546
Tonga - A3	**A35s AU QC UN July 30-Aug. 2**	**I547**
United Arab Emirates	**A61AD 14190 kHz at 1200Z**	**I546**
Uzbekistan - UI	UI8ZAA 21300± 01-0300Z	I546
	UI8ZAC 21280± 0200Z	I546
Walvis Bay - ZS9	ZS9A 28610 1430-1600Z Sun.	I545
Zaire - 9Q	9Q5TE 14200 0500Z	I546

Contributors

This Issue of The DX Bulletin would not have been possible without the invaluable assistance of the following: KH6BZF, SESC, AH3C, AJ9C, EA5AR, H44SH, Japan DX News, JH1FVE, KØPP, K1BV, K1HDO, K2OLG, K4GLU, K4II, K4IQJ, K6IR, K7UOT, K8CV, K8RWL, KA1XN, KA3DBN, KA3UVU, KD7SO, KF5IU, KJ4BK, KK6H, KQ3S, KT7H, KV4AM, LNDX, N1HN, N4MM, N4NW, N6JM, NØBLD, NF6H, NO7F, NV8N, NX7K, NY4A NZ9R, VE1RJ, VE1YX, VE2EDK, VE7COP, VK2FCA, VK2PS, W1AW, W1BWS, W1CYB, W2GD, W4BUW, W4PSJ, W4VQ, W6JOX, W6UQF, W7AWA, W7AYY, W7LR, W8MEP, W9DH, WA1NPZ, WA2MZX, WA2VKS, WA4FTM, WA6WPG, WA9AQE, WB4OSN, WB5MTV, WB8SFF, WB8ZRL, WC6I, WD9GGY, WDØCHW, WØJRN, WY2V, and NCDXC. Thanks!